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## SERIE RESEARCH MEMORANDA

Williamson's 'New institutional Economics':  
a case for applying Ockham's Razor

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**Williamson's 'New Institutional Economics':  
a case for applying Ockham's Razor**

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Williamson's "New Institutional Economics": a case for  
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by B.D. Elzas'

In 1937 R.H. Coase made a start with what much later proved to be a new field of study in price theory in general, and in the 'theory of the **firm**' in particular: the explanation of the division of coordination activities between firms and markets in a market economy. At first, however, this start was followed by a long period of silence. Its **termination, in the 1960s**, was accelerated by a new pathbreaking publication by Coase.<sup>1</sup>

In the course of the 'sixties and 'seventies a number of more or less rival approaches arose: the 'property rights' approach, the '**law** and economics' approach, the '**principal-agent**' approach, and O.E. Williamson's "**New Institutional Economics**" (NIE) approach (Williamson 1975).<sup>2</sup>

This essay is meant as a critique of two of Williamson's basic assumptions. Williamson builds a theoretical construction on the basis of a number of building-blocks. Two of these, 'bounded rationality' and 'opportunism', are treated in this paper. It will be argued that this combination of **building-blocks** is a poor choice. Two objections will be raised against it. On the one hand, it happens to be unnecessarily

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<sup>1</sup>Coase 1960. For a defense of this view on that particular episode see Elzas 1998.

<sup>2</sup>Williamson 1975. He later substituted the epitheton 'Transaction Cost Economics' for NIE, reserving the latter term for designating the much wider field of economic order and organization in general. This change of names is not followed in the text above, because the name NIE contrasts Williamson's approach to the narrower field much better with rival approaches than 'transaction cost economics' could do. Transaction costs play an important part in all approaches to this field, as they did in **Coase's** founding work already. The term NIE, however, was introduced by Williamson on purpose: he wanted to express a relationship between his approach and Commons's variety of the 'old' Institutionalism. See Williamson 1975, p. 3.

complicated as a basis for the description of human behaviour on markets and in firm-like organizations. Thus **Ockham's** Razor could be applied successfully. On the other hand, this combination of building-blocks threatens to exclude an essential element of human behaviour from the analysis, viz. the element of trust. This leads us to the conclusion that Williamson's combination of building-blocks could better be dispensed with, if a superior alternative is available. Such a superior alternative for the description of human behaviour as a step towards the explanation of coordination activities in the market economy has existed since the times of Richard Cantillon and Adam Smith. Unknowingly (or at least without any reference to these proto-classical authors) this alternative was used by Coase (1937), and by others in their belated following in **Coase's** footsteps. Therefore the paper concludes with a plea for the explicit adoption of this proto-classical combination of assumptions in this field of study.

### 1. On 'bounded rationality' (BR)

The first building-block of Williamson's theoretical construction is the assumption of 'bounded rationality' (BR). Williamson derives the expression BR from Herbert Simon (1957). However, it remains unclear whether he attaches exactly the same meaning to it as Simon does. For one thing, the meaning Simon attaches himself to the term is not unequivocally clear. For another, in the course of Williamson's publications since 1973 (when he first introduced Simon's expression into his own analysis) only one part of its possible meaning to Simon is emphasized, thereby practically neglecting the **rest**.<sup>3</sup> We shall not go into these complications, because they are not really important for our goal. To omit them, we shall define the assumption of BR in a way most favourable to its usage in this field. To this end it is better to refer to Simon's work directly, because his conception of the content of the term BR is the broader one.

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<sup>3</sup>In Williamson 1973 he gives the following description of BR: "Bounded rationality refers to rate and storage limits on the capacities of individuals to receive, store, retrieve, and process information without **error**." (p. 317). As will be explained in the text, this description omits the 'ignorance' part of Simon's BR. Similar descriptions were found in Williamson 1975 (p. 9), and 1985 (p. 46).

Simon begins by judging the assumption of '**rational**' decision making not to be very helpful for organization theory:

"I do not intend to dispute the usefulness of the "**ideal type**" of economic man for many problems of economic analysis. But the specific problems with which organization theory is concerned are of a character that generally renders this particular idealization inappropriate." (Simon, 1957, p. 197).

He discerns two barriers blocking the way to the 'rational' decision making postulated by neo-classical price theory. One is associated with "**the** rationality of more than **one**" in various game-like situations. Each of the parties involved tries to predict the others's reactions to the range of his potential next moves before, and in order to, making his preferred choice among them. The neo-classical example is oligopoly theory. Even if there is only one other party involved, and the rules of the game restrict the number of possible moves severely (as in chess), the whole '**tree**' of strategic moves from the beginning to the end of the game is much too complicated for human computational capacity to compute completely. This is the computational complexity barrier to '**rational**' decision making, which is to be expected in situations involving strategic behaviour.

The other barrier to 'rational' decision making is uncertainty, or ignorance about the future. It can be ascribed to incomplete information about '**the** way the world works'. Man is not omniscient and therefore he is not able to make fully reliable predictions. Realizing this, he cannot decide his moves perfectly 'rationally'.

The following quotation summarizes the two barriers to neo-classical 'rational' decision-making discerned by Simon:

"It is only when one tries to understand the actual mechanisms of decision-making - as distinguished from the classical concern with what a man would do if he shared **God's** omniscience - that one appreciates that the central problem in this kind of rational behavior is to obtain information and to use that information in computations; and that the entire mechanism of decision is molded by

information-processing considerations." (Simon [1956], 1982, Vol. 1, p. 237).

In this quotation the two differences between the assumed circumstances of neo-classical 'rational' decision-making and those of BR prove to be imperfect information and imperfect information-processing. This raises the question whether it is necessary, important, or even useful to distinguish between these two elements of BR if it is applied for a description of human behaviour in organizational contexts. Obviously, if this were not the case, we could better treat them as a single difference from 'rational' decision-making, thereby evading the not **very** easy task of imputing any departure from 'rational' behaviour to either imperfect information or imperfect information-processing.

On this issue Williamson (1985, p. 57, note 15) comes to our help by pointing to what he judges to be a "**somewhat** extreme position" taken by Simon (1972, p. 170):

"What we refer to as **"uncertainty"** in chess or theorem proving, therefore, is uncertainty introduced into a perfectly certain environment **by** inability - computational inability - to ascertain the structure of that environment. But the result of the uncertainty, whatever its source, is the same: approximation must replace exactness in reaching a decision."

Thus, whether uncertainty is caused by imperfect information input directly, or by its imperfect processing (as a consequence of limits to human computational capacities), the result is the same: human decision-making has to proceed in conditions of uncertainty.' Although uncertainty may have two separate causes, from the point of view of human **decision-making** it is the one and only barrier to realizing neo-classical 'rationality'. Its partitioning by Simon into the two barriers of computational complexity and ignorance is judged by him to be of no importance for the resulting

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'Note that Simon here uses the word 'uncertainty' also in connection to the computational complexity barrier, **while** in his 1957 publication he reserved this word for the **ignorance-about-the-future** barrier.

difference between BR and neo-classical **'rationality'**:  
 " ...approximation must replace exactness..".

Uncertainty results from imperfect information input as such, or from imperfect processing of the data. 'Perfect knowledge' would result only if both were perfect. This being impossible, however, perfect knowledge is unattainable. Thus in this context 'uncertainty' and 'imperfect knowledge' may be used as if they were synonyms. Therefore, the following conclusion is warranted:

For applications in the theory of the firm there is no important difference between using Simon's notion of BR or using the more pedestrian notion that man is compelled to make his decisions in a state of uncertainty or imperfect knowledge. The merit of Simon's notion lies on another plane: it makes clear that there could be two mutually independent causes of this state, each in itself sufficient to produce it: imperfect information input and imperfect information processing. However, as information input for the **decision-maker** outside games like chess is imperfect anyway, there is no good reason to prefer BR over 'uncertainty' (or 'imperfect knowledge') as an assumption in this field.

Moreover, there is a good semantic reason for eschewing the term BR: 'rationality' has an unwelcome connotation. Simon experienced this himself, as witnessed by a digression he makes on the difference between BR and 'irrationality' (Simon 1957, p. 200). Clearly, his choice of the term BR was strongly influenced by the habit in neo-classical circles of calling the perfectly informed decision-making by the agents in neo-classical theory 'rational' decision-making. In that context the word 'rational' did not mean anything else than that agents maximize their profit, utility or whatever else their objective may be. They are able to do so, given their objective function on the one hand and the complete information concerning their possibilities on the other. Indeed, under those circumstances it would be 'irrational' not to do so. This would mean that agents to some extent ignored their own objective functions, by definition a stupid thing to do. Thus, 'rationality' here does not mean anything else than that the situation for the individual decision-maker is assumed to be completely defined.



The 'rational' consumer, for instance, decides to buy the very combination of consumption goods that results in maximal utility, given his subjective utility function, his budget, and the prices of all existing consumption goods in his ceteris paribus world. Given this situation and the postulate of utility maximizing this is the only possible decision to make. It is a tautological description of his 'choice': the assumed striving for utility maximization in a situation of perfect information about all relevant data (perfect information input) and the assumption that the necessary calculations do not exceed the individual's computation capacities (perfect processing of the data), could only result in the one combination of purchases chosen. There is no real rationality involved in this agent's decision-making, only a formal or tautological '**rationality**'.

Against this historical background Simon's choice of the term BR in the 1950s is perfectly understandable. It is a consequence of his endeavours to describe real-world situations, in which decisions have to be made without perfect knowledge, and to contrast these with the neo-classical description of decision-making, current at the time. However, anyone not acquainted with this background could **be** thrown into confusion by the term BR. This is **a** secondary reason to substitute 'imperfect knowledge' or 'uncertainty' for it. For both reasons Williamson (using BR from the 1970s) would have done better by doing so.

## 2. On 'opportunism

The second building-block of Williamson's theoretical construction he alternately calls 'opportunism' and 'self-interest seeking with **guile**'. It emphasizes the unreliability of man in his dealings with others of his kind. With the help of this assumption Williamson wants to explain specific market failures, various special arrangements of market transactions, and specific patterns of internal organization. It will be argued here that the addition "**with guile**" to the old notion of -self-interest seeking is completely superfluous in these connections, and could even **be** an obstacle to the explanation of human behaviour.

To demonstrate this, let us distinguish two situations.

Firstly, there is perfect knowledge in the economy. In that case every agent - whether acting as a potential buyer or as a potential seller, whether doing so on markets for consumer or for producer goods, - lives in a glass house. However egotistic or even wicked he may be, under a regime of perfect knowledge or information he knows fully well that all other agents are as completely informed about his conduct as he himself is. So cheating or any other kind of opportunistic behaviour would make him a pariah in society, because such misbehaviour would be detected at **once**.<sup>5</sup> As it would be communicated to the whole world costlessly and perfectly, there is no other society he could flee to without being found out immediately as a cheater from abroad, ostracizing him in any society. Not keeping to the rules or sticking to one's words would be completely contra-productive, as viewed from his own self-interest seeking perspective. Thus, it is absolutely certain that in this situation man, as a **self-interest** seeking being, will eschew such behaviour in this situation, whatever his inclinations may **be**.<sup>6</sup>

Secondly, assume a society with imperfect knowledge. Then some acts will remain hidden to others, for the time being or possibly forever. In this situation. self-interest seeking *could* produce cheating or any other kind of opportunistic behaviour. Whether an agent really commits an opportunistic act depends, among other things, on his character, education, his attitude towards risk, and on his feelings towards the potential victims of his considered misbehaviour. It will be clear, however, that now self-interest seeking and opportunistic behaviour do not exclude each other, as they did in the first case. As a consequence of this, an individual economic agent does well to be alert to the possibility that in his dealings with others he may happen to meet the wrong person in

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<sup>5</sup>The more literally the regime of perfect knowledge is interpreted, the less room will be left for opportunistic behaviour. The extreme case is that every agent is assumed not only to be able to detect opportunistic behaviour of all others, but also to do so without any cost. Thus, without any loss of time, such behaviour would become absolutely impossible. No agent would be able to fool any other agent for any time.

<sup>6</sup>From this follows that self-interest seeking' man is assumed to be in control of his impulses.

this respect; or that one of his till now correctly-behaving business partners could change his behaviour in the future, for instance on the impulse of an adverse change in his own circumstances. Yet this does not mean that nobody can be trusted anymore at any time. In other words, economic agents are wrong in ascribing guile to all others, for there are still many who can be trusted in normal circumstances. Mistrusting everybody else in all circumstances is clearly not in the self-interest of the individual agent. General mistrust would preclude many a potential business agreement. Conquering mistrust by inserting various extra clauses into a contract would be **very** expensive. Moreover, it is technically impossible to write a 'perfect contract', for the imperfect information input regime precludes perfect foresight. Mistrust of employees could be counterproductive and costly.

Thus, the conclusion seems warranted that Williamson exaggerates by ascribing opportunism to all economic agents, and hence to mankind. Following eighteenth-century authors like Cantillon and Adam Smith would have been a better choice. Man is a self-interest seeking animal, so that opportunity could make the thief.' Here is a case for using Ockham's Razor: cut **"guile"** away from Williamson's second building-block. Self-interest seeking, the more general assumption, remains. Combined with the modified first building-block - imperfect knowledge (uncertainty, imperfect information output) - this creates the possibility for opportunistic behaviour, without making it an inevitable result for all cases in which human behaviour is not monitored directly and perfectly.

If this critique is valid, Williamson's specific derivation of 'market failure' from a combination of factors (among which BR and opportunism) has to be given up in this form. That is no

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'Strictly speaking, the expression **"self-interest** seeking animal" is not quite accurate in Smith's case. All animals appear to be self-interest seeking, according to the Wealth of Nations (WoN), but man distinguishes himself from all other animals by another attribute: **"the** propensity to truck, barter, and exchange one thing for another" (WoN I.ii.1). For **Cantillon's** notions of man's self-interest seeking and the inevitableness of deciding under uncertainty, see his "Essay on the Nature of Trade in General", Part I, chapter xiii.

loss, because their substitutes 'imperfect knowledge' and 'self-interest seeking' suffice. When combined with other assumptions (such as few potential buyers and sellers on a market) they could also lead to market failures.\*

### 3. Testing the applicability of Ockham's Razor

A long period of inactivity in this field followed after Coase (1937) had made a beginning with the exploration of the field of 'firm versus market'. This ended rather abruptly in the early 1960s, when at last publications in this field began to form a stream. However, the next incident already lurked around the corner. The newly and belatedly developing study of 'allocation by markets versus allocation by **firms**' gradually became dominated by Williamson's approach, named by himself "**New Institutional Economics**" (Commons's institutionalism being regarded as the old one). Seen from the perspective of the continuity of assumptions about man (a continuity that was remarkably strong in the sequence **Cantillon-Smith-Marshall-Coase**), Williamson's approach may be typified as a cuckoo in the nest of economics.

Remarkable as this development is in itself, there is the even more remarkable fact that Williamson's work met with little resistance from the more orthodox circles. Williamson's basic assumptions were subjected to debate at conferences held in the late 1980s and early 1990s on New Institutional Economics (**NIE**) and its relations to old Institutionalism and to Law and Economics, as may be gleaned from accounts in the *Journal of Institutional and Theoretical Economics* (**JITE**).<sup>9</sup> Much more

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\*Besides, Williamson did not make a fortunate choice by adopting the expression "market failure". With Arrow's approach to the market system, in which this expression fits, Demsetz had taken issue already when Williamson adopted it in a 1971 article, and again in his 1975 book: see Demsetz 1969. To summarize **Demsetz's** objection: the word "failure" wrongly suggests that the market system of the real world *fails* by not being as complete and as perfect as the neo-classical **fairy-tale** market system. Demsetz speaks of a "**nirvana** approach" to the study of the market system (1969), 1989, p. 3.

<sup>9</sup>For instance in **JITE** 1990 and 1993. A remarkable example is to be found in the latter. At one of the conferences Richard Posner, one of the leading representatives of the 'law and economics' approach, presented a paper, highly critical of

attention, however, was devoted to other subjects.

One of them concerned the implications reached by NIE, compared to those reached by the Law and Economics School. Friend and foe agreed that in this respect the differences between the two were not very great, and that those encountered are more ones of emphasis than of principle. They were not judged to be fundamental." This conclusion is in accordance with the position defended in the previous section. A case for applying **Ockham's** Razor ought to be one in which implications of the '**shaved**' theory are not changed: only superfluous parts of the assumptions are cut away with this medieval razor. This happens to be the case here.

#### 4. Conclusions: why bother?

There are several reasons for bothering about Williamson's choice of basic assumptions about man's behaviour, but we can summarize them as one big objection: it leads (and has already led) to unnecessary confusion within the profession.

His adoption of Simon's BR assumption introduced unnecessary complications into the description **of** human decision-making behaviour in the modern theory of the firm. When Simon

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Williamson's NIE (Posner 1993). Coase, who may be regarded as the founding father of both rival approaches, came to Williamson's **defence** (Coase 1993). Although defending and praising him, he admits his own doubts concerning Williamson's basic assumptions:

"My discussions with researchers in this field has made it clear to me that Williamson's influence has been immense. In a real sense, transaction cost economics, through his writing and teaching is his creation. Posner objects to some concepts espoused by Williamson such as "bounded rationality". I also have reservations about this concept as I do to any economic concept that includes the word "**rational**". I was also doubtful about the validity of Williamson's treatment of "**opportunism**" as a significant rationale for vertical integration (not, of course, as an explanation of other contractual arrangements). But these are differences that will be cleared up by further discussion and, above all, by more empirical work. Whatever the result, Williamson's basic approach will be unaffected." (Coase, 1993, p. 98).

<sup>10</sup>See, for instance, Posner 1993.

observes that both barriers to 'rational' decision-making ultimately have one and the same consequence, Williamson belittles this valuable observation by calling it a "somewhat extreme position". It even seems as if he has a strong preference for the maintenance of unnecessary complications.

Williamson increased confusion by the unnecessary introduction of 'opportunism' ('self-interest with guile') instead of good old 'self-interest seeking' as the behavioural assumption. It is imaginable that his adoption of the rather complicated BR assumption confused him too much to be aware of this, but in fact the explicit assumption of guile as a human "attribute" (Williamson 1998, p. 31) is completely superfluous in combination with BR or any other assumption stating that man has to make his decisions in a perennial condition of imperfect knowledge.

Let us conclude with an explanation of the remarkable fact that Cantillon and Smith made a more fortunate choice of assumptions than Williamson (or even Simon) did two centuries later. This fact looks more remarkable than it really is. As explained in section 1 above, Simon had a strong urge to contrast his view of human decision-making conditions with the neo-classical assumption of perfect knowledge. In the 1950's neo-classical theory of the firm was still the dominant theory of the firm, and therefore this was the assumption he had to contest. Neither Cantillon nor Smith were confronted with this neo-classical '**tautologic**' and therefore could choose their assumption regarding human knowledge more quietly.

In this respect a parallel may be observed between Simon and Coase. When Coase (1937) ventured his exploratory expedition into the ***terra incognita*** of the division of coordination activities between firms and markets in a market economy, he succeeded in penetrating this field by adopting the twin assumptions of transaction costs on the market and managing costs in the firm. Behind these assumptions lies the same notion as that of our proto-classical authors: man is not omniscient. Why did not Coase state this to begin with?" The

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<sup>11</sup>**Expressions** of the idea of imperfect knowledge are to be found at least five times in text plus notes of **Coase's** 1937 article. However, transaction costs are not explicitly

answer is similar to that given in Simon's case: he had to fight a formidable adversary, formalized neo-classical theory, which was just achieving its mainstream position at the time. So he was forced to choose more directed assumptions.

Nevertheless, it may be said of Coase and of Simon (and in Simon's slipstream partly of Williamson too) that at least implicitly they made assumptions similar to the **proto-classical** assumptions of imperfect knowledge and self-interest seeking, even if they did not realize it themselves at the time. In that respect they remind one of Moliere's *Le Bourgeois Gentilhomme* (1670), Mr. Jourdain, who discovered that he had spoken prose for over forty **years** already "without knowing it".

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